An audit of Primary Care referrals for further management of Acne Vulgaris at the Dermatology Department, Dumfries and Galloway Royal Infirmary.

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Abstract

Background:

Dermatology at DGRI receives approximately 60-80 new referrals every week from Primary Care, thus providing a suitable base for an audit of communication quality in referral letters. As the weekly nurse-led Acne Vulgaris clinic regularly receives referrals from Primary Care specific to one condition, it was decided that Acne Vulgaris would be chosen as the referral subject to be studied.

Introduction:

Acne is a common chronic skin condition that can be graded based upon the severity of the clinical picture. Management options undertaken are determined by this grading. Acne that is graded as severe, or moderate that is inadequately controlled in Primary Care, is referred to Dermatology for further assessment and treatment. Both national and locally-produced guidance for GPs exists to provide advice on when to refer patients with acne. It is important that this advice is followed in order to facilitate a smooth transition at the Primary-Secondary Care Interface. Optimal communication, in the form of the referral letter, is therefore required.

The aim of this audit is to identify any deficit in communication between Primary and Secondary Care in a specific example, acne referrals, and to provide recommendations to rectify any difficulties identified.

Methods:

A retrospective audit of 50 consecutive acne referral letters was conducted. The letters were compared to NICE (2014) referral indications and then a sub-set of letters (“failure of Primary Care management” category) were compared to the local referral pathway. In the first comparison the percentage of adherence to the referral indications was used as an outcome. In the secondary analysis the principle
outcome was whether there was sufficient detail present or not to determine if the local referral pathway had been followed.

**Results:**
The results show that: 40% (n = 20) of referrals were due to the development of scarring/severe acne; 38% (n=19) were due to failure of Primary Care management; 4% (n = 2) were due to uncertainty of the diagnosis; and 18% (n = 9) were classified as being for ‘Other’ reasons.
94.7% of cases (n = 18) in the ‘failure of Primary Care management’ category were found to contain insufficient information to support adherence to the local referral pathway.

**Conclusion:**
This audit has found that there is a discrepancy in communication between GPs and Dermatologists in acne referral letters. It is advisable that work is undertaken by both parties to ensure that communication is optimal and that there is shared understanding of how best to manage and refer patients with Acne Vulgaris.
Acknowledgements

Throughout the process of conducting this audit I have been fortunate to receive great support from numerous people. In the beginning my Mum, Dr Fiona Vernon, was very instrumental in helping me come up with ideas for the project topic and indeed the final idea. It was also thanks to her that I made contact with Dr Colin Malone at the Dermatology department at Dumfries and Galloway Royal Infirmary. Dr Malone has called upon his wealth of experience to provide me with lots of background information about both Acne Vulgaris and Dermatology generally at DGRI. His support in the project has been invaluable but it is also his willingness to get me involved in the department that has been greatly appreciated. Dr Lindsey Yeo and sisters Natasha Benson and Helen Smith have also made me feel very welcome. They have given me fantastic opportunities to learn from them in clinics and have answered all of my questions patiently and helpfully.

Away from the department itself, I have been very lucky to have the support of Dr Roy Soiza in Aberdeen and Ms Vicki McLaughlin in Dumfries. Vicki got my project off to a great start with her kind welcome to Dumfries as well as all of the hard work she had put in to arrange the project prior to my arrival. Dr Soiza has been great from start to finish in guiding me through the process of creating the elective proposal, preparing for the elective and finally producing the report. I am very grateful for the time that he has taken from his already very busy schedule to provide me with support, often via emails outwith the working day.

Thank you to everyone for facilitating this project and going above and beyond to make it a valuable and enjoyable experience for me.
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1. Background

This audit was conducted at the Dermatology Department in the Dumfries and Galloway Royal Infirmary, Scotland. The department has recently undergone a change in staff and structure with the retirement of the long-time lead consultant. Currently the department is run by two full-time Dermatology consultants and there are also two specialist nurses that conduct their own clinics and supervise treatment of both inpatients and outpatients. Together the team are striving to optimise the efficiency of the department and the services it provides. Dermatology at DGRI receives on average approximately 60-80 new referrals every week from GPs across the entire region. Therefore, this represents a large workload for the team to keep on top of and it is imperative that there is good communication both within the department and with their Primary Care colleagues. This presented an ideal opportunity to conduct this audit.

During my fourth year at university, based in Aberdeen Royal Infirmary, it became apparent in clinics across all specialities that referral letters from Primary Care are a very important means of gathering information and preparing for consultations. However, somewhat unfortunately, it also became apparent on several occasions that they could also be a source of exasperation. Many clinicians in the hospital during that year commented on a lack of information received or confusion over the content of the letter – sometimes a combination of both. These observations led me to think about the importance of clear and concise written communication between Primary and Secondary Care, particularly because there is an obvious geographical barrier preventing face-to-face communication that must be overcome. Of course, this situation works both ways and therefore I also acknowledge the importance of clarity in discharge letters and other forms of communication from Secondary Care back to Primary Care.

With all of the above in mind, I chose to audit referral letters for a specific condition, Acne Vulgaris, to try and discover if there is any discrepancy in information provided to Secondary Care, in this example Dermatology, and information Secondary Care clinicians expect to receive.
2. Introduction

2.1 Introduction to Acne Vulgaris

Acne Vulgaris, simply called acne in common parlance (the term that will be used in this article), is a very common dermatological condition that typically affects teenagers and young adults. However, it can persist into later life and affect older adults, too (Kenny, 2015). NICE (2014) estimates approximately 80% of people between the ages of 11 and 30 are affected by acne at some point. It is widely recognised that suffering from acne is more than just a physical burden and there are many studies of the psychological and social impact that this condition may have on individuals afflicted by it. In a review conducted by Dunn et al. (2011) there was qualitative evidence that suffering from acne increased the rates of psychological distress and ill health, such as anxiety, depression and suicidal thoughts. However, despite its prevalence, acne could be described as a taboo subject in young people that often results in embarrassment and, therefore, a lack of understanding about the condition itself. In a large study of French adolescents, Poli et al. (2011) determined that there were myriad beliefs between the respondents and that, in general, young people’s understanding could be improved. So what is Acne Vulgaris?

2.2 Background Information / Pathology

Acne is a disorder of the pilosebaceous follicles found in normal human skin, particularly on the face, back, chest and shoulders (Knott, 2015). The exact pathology of acne is beyond the remit of this report but in simple terms the following steps occur:

- Sebum production is increased (eg due to a surge in androgens at puberty);
- Keratinocytes are shed around the follicle but are unable to reach the skin surface;
- Open and closed comedones, commonly called black heads and white heads, form;
- Inflammation can develop and, depending on the extent of inflammation, papules, pustules, nodules and cysts may develop (Kraft and Freiman, 2011).
There is also a recognised role of the skin commensal *Propionibacterium acnes* (Knott, 2015) and it may be that proliferation of this organism is involved in the production of inflammation (Titus and Hodge, 2012).

### 2.3 Grading, Management and Referral Guidance

The clinical pattern exhibited is the main determinant of the severity (grade) of acne. Furthermore, acne is in essence a clinical diagnosis so an ability to recognise these clinical features is very important (Kraft and Freiman, 2011). Acne Vulgaris may be attributed to underlying causes, such as endocrine disturbances as is the case in Polycystic Ovarian Syndrome, and may also present similarly to other dermatological conditions (Kraft and Freiman, 2011). Notable differential diagnoses are Acne Rosacea, Perioral Dermatitis and Folliculitis (Knott, 2015). Consequently, there may be select cases that are more difficult than others to diagnose with absolute certainty in Primary Care. It is, therefore, recognised by the 2014 NICE Guidelines (NICE, 2014. Appendix 1) that one indication for referral to Dermatology is uncertainty of diagnosis.

Grading is also used to indicate when referral is appropriate. As mentioned previously, grading is largely assessed by clinical judgement of the extent and pattern of the acne. Grading can be simplified in to three main categories - mild, moderate and severe - or it may be graded more extensively by making comparisons with standardised photographs of cases of acne with varying severity (Oakley, 2014). NICE (2014) uses the simplified mild, moderate and severe grading method and their key indicators for each category are: open and closed comedones predominate in mild disease; inflammatory lesions, such as papules and pustules predominate, in moderate disease; and the presence of nodules and cysts, in combination with the predominance of inflammatory lesions, are seen in severe disease.

NICE (2014) recommends that severe/nodulocystic acne is referred “soon” (within 2 months) to Dermatology and also recommend that any severe variant, for example Acne Fulminans, is referred urgently (within 2 weeks). Management of severe acne in Secondary Care often involves the use of oral isotretinoin, which is a potent retinoid medication commonly known as Roaccutane (Kraft and Freiman, 2011). In general, acne that is graded as being mild or non-inflammatory is managed in Primary Care. Similarly, moderate acne is also managed in Primary Care – at least
in uncomplicated cases anyway. Failure of Primary Care management of moderate acne, including failure as judged by the patient’s perception, is the third broad indication for referral to Dermatology according to NICE (2014).

Management of moderate acne in Primary Care typically involves a number of approaches and it is clear from the literature that there are many regimens available, all with different indications for referral. Various evidence-based permutations are detailed in the 2014 NICE Guidelines (NICE, 2014). The most commonly used agents are topical benzoyl peroxide, topical retinoids, topical antibiotics, oral antibiotics (e.g., tetracyclines and macrolides) and oral contraceptives such as co-cyprindiol for female patients (NICE, 2014). These medications can also be tried in various combinations. In the interest of this audit, it was believed that local guidance would be the most appropriate source of management guidance to use. The recently produced local referral pathway (Appendix 2) in Dumfries and Galloway is based upon information from the Primary Care Dermatology Society (Cunliffe, 2015). The crux of the local referral pathway is that prior to referring moderate cases due to failure of Primary Care management (less than 50% improvement of symptoms in 3 months) the following steps should have been trialled: at least two combinations of a systemic antibiotic PLUS a topical agent (different antibiotic in each combination) for a minimum of 3 months each; or a combination of co-cyprindiol (Dianette®) PLUS a topical agent for a minimum of 3 months in female patients (if not contraindicated).

2.4 The Primary-Secondary Care Interface

When considering the sharing of information in acne referrals between GPs in Primary Care and Dermatologists in Secondary Care it is impossible to overlook the importance of the intangible “Primary-Secondary Care Interface”. Whilst Wahlberg et al. (2015) acknowledges that research at the point of transition of care between Primary and Secondary Care is challenging, Akbari et al. (2008) describes the interface as a “key organisational feature of many health care systems” in a review of interventions to improve referrals from Primary Care to Secondary Care. Searching pertinent literature provides ample evidence of the importance of efficiency and clarity of communication across this interface – be it from GPs to specialists or vice versa. Hartveit et al. (2011) and Thong et al. (2013) are just two examples of studies in different sub-specialties of Secondary Care that have looked at communication
between the two ends of the care system (generalist and specialist) and conveniently they have analysed communication going in opposing directions. Both studies, and many others, agree that optimal communication is essential to patient care. Xiang et al. (2013) and Wahlberg at al. (2015) put particular emphasis on the role of referral letters in the transfer of patients’ management from Primary to Secondary Care. Regrettably though, evidence in the study by Xiang et al (2013) suggests that 38% of specialists would report GP referrals as lacking information either “fairly often” or “very often”. This finding is in concordance with the anecdotal evidence from Aberdeen Royal Infirmary mentioned in the background section of this report. It is this alleged inadequacy of a percentage of referral letters - so vital to the patient journey from Primary to Secondary Care - that this audit aims to identify, in this case in acne referrals to Dermatology. This audit could potentially be extrapolated for use to analyse other referral pathways at the Primary-Secondary Care Interface.

2.5 Aims and Objectives

- The aim of this audit is to determine if there is a discrepancy between information provided in referral letters from General Practitioners in Primary Care for the management of Acne Vulgaris and the information that is required by Dermatologists in Secondary Care, based upon both the 2014 NICE guidelines and the recently created local referral pathway.

- The primary objective is to determine whether referrals from General Practice for the management of Acne Vulgaris are appropriate based on the three main referral indications detailed in the 2014 NICE Guidelines (Appendix 1).

- As a secondary objective, information from referrals attributed to “failure of Primary Care management” will be compared to current local guidance (Appendix 2) from the Dermatology department to determine if the management in Primary Care was satisfactory prior to referral.
3. Methodology

3.1 Literature Review

The online databases Pubmed and The Cochrane Library were searched for literature relevant to Acne Vulgaris and referrals from Primary Care to Secondary Care.

Searches on Pubmed were limited to ‘free full text’, ‘last 5 years’ and ‘humans’. Search terms included “Acne Vulgaris”, “Primary Care AND referral letters AND communication” and “Roaccutane or isotretinoin”. The phrases “Acne Vulgaris and Isotretinoin” and “Primary Care” were searched for in The Cochrane Library. The reference lists in key articles were also examined to try to uncover further pertinent sources.

The 2014 NICE guidelines were consulted throughout the project. Relevant websites such as the Primary Care Dermatology Society website, Patient.co.uk and NHS Choices were also used as sources of information.

3.2 Data Collection

The Topas system on the NHS Dumfries and Galloway intranet was used to search for appointment lists at the nurse-led Acne Vulgaris clinic. The search began at the most recent clinic to the point of data collection (September 14th 2015) and went backwards through consecutive clinics until 50 consecutive referred cases had been identified. The search went back approximately 4 months in time.

Each individual patient was searched for on NHS Dumfries and Galloway’s SCI Store using the patient’s name and their unique CHI number. Each referral letter was read and was allocated to the most appropriate category in the pre-made results table: Severe acne or development of scarring; Failure of Primary Care management; Uncertainty of diagnosis; Other; No indication stated.

Any referral letters that were classified as “Failure of Primary Care management” and “Other” also had a brief comment noted next to them, such as “did not follow local guidance”, to allow for secondary analysis.
Two days later, the referrals that were attributed to “Failure of Primary Care management” were then searched for again using the clinic date, patient gender and age that had been securely stored with the results. This time the management details in the letter were reviewed and the data were recorded in a table detailing the local guidance, from the Dermatology department, for management of Acne Vulgaris in Primary Care.

3.3 Data Analysis

All data were collected in tables that were made using Microsoft Office Excel at the beginning of the project. Once the data had been inserted into the relevant columns of the respective tables it was possible to determine the number of cases that had been referred under each criterion/referral indication and also analyse the cases referred due to ‘failure of Primary Care management’. The results were then presented in both the original raw data table format and in a more visual representation using pie charts. Results are expressed in both whole number form and as percentages. The value of percentages is that the results can potentially be compared directly to future studies - for example, when completing the audit cycle (Figure 1) or if this audit is conducted for other conditions, possibly even in other specialties.

3.4 Data Protection

Each individual patient’s referral letter was searched for on SCI store at the time their details were encountered in the list of appointments on the Topas system. This prevented the need to store identifying details, such as a CHI number or name, to search for them again once the 50 cases were identified. The only personal information recorded was the age and gender of the patients. The date of the clinic was also recorded. These details were stored securely in a password-protected document in a password-protected laptop that no other person was given access to. The data collection was conducted in a locked office and all information was obtained from an NHS Dumfries and Galloway computer. The details collected on my personal laptop and stored alongside the results (gender, age and clinic appointment date) were deleted immediately after completion of the results analysis and write-up.
3.5 The Audit Cycle

The framework of the audit cycle, as shown in Figure 1, was used to provide guidance when carrying out this audit. After the initial question had been posed the next task was to set standards that the referral letters would be compared against (Step 1). This was achieved by reviewing the 2014 NICE Guidelines and the Local Referral Pathway for Acne Vulgaris in Dumfries and Galloway. Data collection was then undertaken (Step 2) to provide the information that would facilitate the comparison of current practice with current guidance (Step 3). In writing this report and analysing the results in the discussion, Step 4 was achieved. Step 5 of the audit cycle will be undertaken in the future, once appropriate recommendations and changes have been made, to complete the audit cycle.
Figure 1: The Audit Cycle. Adapted from (Tidy, 2014).
4. RESULTS

4.1 General Results:

A total of 50 referral letters were analysed (Table 1). 41 letters (82%) were found to fulfil at least one of the three main referral criteria stipulated in the 2014 NICE Guidelines. The remaining 9 (18%) were classified as having ‘Other’ reasons for referral. There were no letters that lacked any clear indication for referral.

(See Figure 2).

Of the 41 letters that fulfilled the guideline criteria, 20 cases (40% of all referrals) were referred because scarring was developing or the acne was classified clinically as severe; 19 cases (38%) were due to failure of treatment in Primary Care; and the remaining 2 letters (4%) indicated that referral was due to a lack of certainty over the diagnosis.
<table>
<thead>
<tr>
<th>Referral Letter Number</th>
<th>Severe Acne or Development of scarring</th>
<th>Failure of Primary Care Management</th>
<th>Uncertainty of Diagnosis</th>
<th>Other</th>
<th>No indication stated</th>
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Figure 2: Reasons for referral of moderate-severe Acne Vulgaris or management at the Dermatology department at DGRI, based on the 2014 NICE guidelines.

Reasons for referral to Dermatology for management of Acne Vulgaris, based on 2014 NICE Guidelines

- Failure of Primary Care management
- Severe Acne / Development of scarring
- Uncertainty of diagnosis
- Other
- No indication stated
4.2 Results of Secondary Analysis:

19 referrals were analysed and the details of Primary Care management were compared to the local referral pathway produced by the Dermatology department at DGRI.

In comparison with “Guideline 1” for GPs to try at least two combinations of different oral antibiotics with a topical agent for at least 3 months before referring due to Primary Care management failure (Figure 3.1), the results show that:

- In 11 of the 19 cases (57.9%) it was not clear from the content of the referral letter whether this guidance had been followed.
- In 2 cases (10.5%) the referral letter indicated that combination therapy had been attempted appropriately but there was no clear indication of the length of time that each of the combinations had been trialled for.
- In 1 case (5.2%) the patient had been referred due to an inability to instigate the guideline combination therapy due to poor compliance and allergy to the antibiotics used, see Table 2. (This result is labelled as miscellaneous in Figure 3).
  and
- In the remaining 5 referral letters (26.3%) it was deemed that none of the patients had been treated with at least two oral antibiotics plus a topical agent concurrently for at least 3 months each time, thus they were judged to have not followed the local guidance.

Of the 19 cases analysed, 9 of them were female patients. These patients could also have been treated with a combination of co-cyprindiol and a topical agent for at least three months (“Guideline 2”). The results show:

- 2 cases (22.2% of female cases) were unable to use this combination of treatment due to contraindications to co-cyprindiol, see Table 2.
- 2 referral letters (22.2%) lacked sufficient detail to be able to confirm or refute that the above guidance was followed for these cases.
  And…
• In the other 5 cases (55.5%) there was no mention of any trial of co-cyprindiol and topical agents in combination and so it was determined that these cases had not undertaken this management option prior to referral.

Finally, it is apparent from the results that there were 7 female cases that, as far as is known from referral documents, could have potentially had either treatment regimen pre-referral to Dermatology:

• In 2 cases (28.6% of the group eligible for both regimen) the referral letters did not provide enough clear information to be able to determine if either regimen in the local guidance had been followed.
• In 4 cases (57.1%) it was unclear from the referral letters whether the oral antibiotic-topical agent combination therapies had been attempted but it was clear that the combination of co-cyprindiol and a topical agent had not been tried.
• In the final case (14.3%) the referral letter did not contain any evidence that either of the two regimen had been followed.
Table 2: Referrals attributed to failure of Primary Care management compared to management guidance provided by the Dermatology Department at DGRI

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<th>Referral Letter Number</th>
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<th>Duration of 3 months for both combinations</th>
<th>Co-cyprindiol PLUS topical agent for at least three months (female patients only)</th>
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*Co-cyprindiol was not an appropriate option for two patients due to contraindications such as high blood pressure and migraine for one patient and increased risk of venous thromboembolic events in the other.

**Achieving this regimen prior to referral was not possible for this patient as compliance was poor with one antibiotic and the second antibiotic provoked an allergic reaction.
Figure 3.1: Primary Care management of cases of moderate Acne Vulgaris compared to local guidance – Guideline 1

Guideline 1: Trial of at least two different oral antibiotics in combination with a topical agent, for at least 3 months each

- 11 (57.9%) Unclear if treatment was tried for >3 months but clear that combination therapy was tried
- 5 (10.5%) Unclear about both criteria
- 2 (5.2%) No evidence of following Guideline 1
- 1 (2.6%) Miscellaneous
Figure 3.2: Primary Care management of cases of moderate Acne Vulgaris compared to local

guidance – Guideline 2

Guideline 2: Trial of co-cyprindiol in combination with a topical agent for at least 3 months (female patients only)

- Contraindications to Co-cyprindiol, therefore not appropriate management
- Unclear if Guideline 2 was followed
- No evidence Guideline 2 was followed
Figure 3.3: Primary Care management of cases of moderate Acne Vulgaris compared to local guidance – Cases that could be managed by either Guideline 1 or 2

Female cases that could have potentially been managed according to either guideline

- Unclear if either Guideline was followed
- Unclear if Guideline 1 was followed and NO evidence Guideline 2 was followed
- No evidence that either Guideline was followed
5. Discussion

5.1 Main Findings:

The initial result that 82% of cases (n = 41) were referred to Dermatology under one of the three main referral indications in the 2014 NICE guidelines was a very welcome finding. It indicated that GPs on the whole were referring cases of acne to Secondary Care for appropriate reasons. The 40% (n = 20) referred due to scarring/severity of acne were absolutely appropriate and this highlights good practice in Primary Care. The 2 cases (4%) referred due to uncertainty of the diagnosis were also justified and adhered to the guidelines. The fact that a referral indication was included in all 50 cases, including the 9 cases in the ‘Other’ category, was a positive finding in itself – it is in contrast to the results of a recent Canadian study highlighted by Wahlberg et al. (2015) that indicated that approximately half of GPs in the study did not provide a clear referral indication in their letters.

However, the situation became more complicated for the cases where GPs were referring due to failure of Primary Care management. These referrals, when scrutinised as part of the secondary analysis, were found to lack vital information despite containing what seemed to be an appropriate reason for referral. Hartveit et al. (2011) demonstrates a similar problem with referrals to mental health services in Norway and also specifically states that “…national and international studies of the quality of this written communication [referral letters] reveal that the quality is poor with regard to the various types of information they cover”. Indeed, a lack of important information was evident in almost all referrals – across all referral indication categories – but it was particularly problematic in this category as the missing information was essential to determine whether referrals were appropriate or not. Figure 3.1 demonstrates that in 18 out of 19 cases (94.7%) referred due to failure of Primary Care management there was uncertainty over at least one of the key points of ‘Guideline 1’ in the local referral pathway. As a result, it is impossible to tell from the referral letter alone whether these cases should be accepted as ‘failure of Primary Care management’ or not and, therefore, whether these cases were indeed appropriately referred based on the 2014 NICE Guidelines. This finding ultimately undermines the initial finding that 82% of cases of acne were referred under one of the three main referral indications. In support of this, Figure 3.2 shows...
that it was also unclear in 22.2% of cases (n = 2) if ‘Guideline 2’ of the local referral pathway was adhered to or not, despite it being an appropriate management option for these cases. In fact, in 55.5% (n = 5) of eligible cases the lack of information provided would indicate that this guidance had not been followed. Therefore, not only is it ‘unclear’ if the referral fits the failure of Primary Care management criterion, but in actual fact this finding suggests that it does not fulfil it. As there was still an appropriate management option from the local referral pathway available for these particular cases, then it could be judged that these referrals were inappropriate or premature.

NICE (2014) recommends that the patient’s perception of their acne is considered, too, when judging treatment failure (Figure 4). This was taken in to account when analysing the referral letters and, indeed, in a number of cases the GP mentioned that the patient wanted to seek further treatment, such as Roaccutane. However, as it was difficult to determine from the referral letters if appropriate Primary Care management had been implemented, then it is plausible that the patient was disappointed with the results of their treatment because it had been an unsatisfactory trial in the first place. Similarly, it is important that GPs and Dermatologists recognise that one of the most common reasons for Primary Care management failure is that patients may feel like treatment is not working after only a few weeks and consequently decide to discontinue it themselves (Kenny, 2015). This is possibly one of the reasons that NICE (2014) recommends that GPs assess patients’ compliance with treatment prior to determining that treatment has failed.

All in all, the secondary analysis of the ‘failure of Primary Care management’ category has demonstrated that there is lack of clarity and depth of information provided in the referral letters analysed in this audit.

With regards to the 9 cases referred due to ‘Other’ reasons it could be argued that they were entirely appropriate referrals. The two main reasons that these cases were referred were either: 1) The GP required assistance in managing the patient as they felt unsure about their next move and, therefore, a second opinion and advice from Dermatology would be best; or 2) The patient had previously been successfully managed with Roaccutane and both the GP and the patient felt they should be referred again for Roaccutane for the current relapse of acne. Wahlberg et al. (2015) expresses clearly that alternative motives for referral, that is rather than simply
seeking a diagnosis, do exist and that these reasons are perfectly appropriate, too. However, it is worth noting that in the majority of these cases the referral letters still contained insufficient detail to determine the severity of the patient’s acne at the time of referral and what management in Primary Care had or had not been attempted. Again this meant that there was conjecture over how appropriate the referrals were based upon the information provided. Furthermore, it should also be acknowledged that, upon completion of treatment with Roaccutane at DGRI, patients are warned that there is a chance that their acne will relapse. They are provided with verbal instructions that if this should happen then they should return to their GP to discuss starting Primary Care management again, for example a combination of an oral antibiotic and a topical agent. In the cases that were referred for consideration of re-starting Roaccutane there was no evidence that this advice had been tried. The reason behind this may well be that GPs were not aware of the advice given to patients – especially as it was given verbally and the duration between finishing Roaccutane treatment and a relapse was often many months or more than a year later. These findings would suggest that this area of acne management could be improved upon with clearer, possibly written, communication between the Dermatology Department and patients and their GPs when Roaccutane therapy comes to an end.

Overall, the theme from the results of this audit is that, for whatever reason, the biggest problem encountered in referral letters to Dermatology for management of Acne Vulgaris is the absence of clear information. This is a problem that is well documented in many other studies of referral letters, such as Xiang et al. (2013), Wahlberg et al. (2015) and Hartveit et al. (2011). In addition to the lack of information, it was found that throughout the 50 referral letters there was also great variation in the substance of the information that was provided. It was clear from reading each letter that there were many different approaches in Primary Care management and there did not seem to be a uniform approach employed. It should be noted that, while barely any referrals conformed to the guidance in the local referral pathway, there were some that followed similar approaches to elements of the 2014 NICE guidelines. These management approaches may have been correct but, as previously described, it was again not possible to determine if they had truly followed NICE guidance due to missing details, such as duration of treatments. It is
evident from the variability of management approaches that there should be increased effort from Dermatology at DGRI to highlight the acne local referral pathway to GPs. In tandem with this effort, it should be ensured that GPs are aware of the pertinent facts that should be included in their referrals and the importance of providing the information in adequate detail.

5.2 Consequences of Inadequate Referral Information and Inappropriate Referrals:

As acknowledged in the introduction to this audit, referral letters are widely recognised as a key form of communication between Primary and Secondary Care. Any inadequacies in the referral letter are amplified in the effect they have further down the line, resulting in problems such as confusion over patient management, loss of clinic appointments, and, according to Akbari et al. (2008), potentially inappropriate treatments and investigations being undertaken. In the context of this audit the recurrent lack of clarity and detail of information provided could potentially result in a number of adverse outcomes for the patients, the department and Secondary Care as a whole.

From patients’ perspective the key areas where harm could occur in this scenario can be divided into psychological and physical. Firstly, in terms of psychological impact, many patients may look upon referral as an answer to their ongoing health problems, as described by Preston et al. (1999), but there are other patients that may find this an alarming, anxiety-provoking development. For example, it is possible that some patients view this as their last chance to finally treat and resolve their acne. Furthermore, in the modern age, a growing proportion of society is able to routinely look up health concerns on the internet without necessarily possessing adequate knowledge to assimilate the potentially worrying information. This again could exacerbate the psychological distress experienced if patients transition from Primary Care to Secondary Care management with the wrong impression of what the next steps in their care may involve. It is therefore important that GPs aim to strike a balance between referring patients promptly but not prematurely or inappropriately to minimise the potential for unnecessary anxiety – be it from delayed access to further management for certain patients or due to uncertainty of what lies
ahead for others (Preston et al., 1999). This is no easy feat as no two patients are the same and a sound understanding of patients’ ‘hidden agendas’ is not always possible (Little et al., 2004). Once a decision to refer has been reached, the GP then has to produce an appropriate referral to ensure that the patient undergoes a smooth transition into Secondary Care. If Secondary Care doctors, such as the Dermatologists, receive inadequate information about the patient’s Primary Care management in the referral letter then they are not in a position to determine if there are still options in Primary Care to be tried or revisited before moving on to more definitive management. They may also incorrectly assume that treatment options have been exhausted when they have not, in fact, been utilised. This could potentiate the patient’s belief that they are running out of options or, in the case of delayed progress as a result of the poor communication, patient’s may begin to feel like progress is grinding to a halt – a state of “limbo” described by Preston et al. (1999). It is fair to say that these unnecessary psychological stresses should and could be reduced with work to ensure that referrals are appropriate and contain relevant information required by the recipient clinician.

Secondly, and arguably even more importantly, is the potential for physical harm to occur as a result of an inappropriate or inadequate referral. The main risk in this context is that patients referred due to failure of Primary Care management will be started on stronger medication, Roaccutane, by the Dermatologist in the belief that they have already tried appropriate treatment in Primary Care. If the referral letter lacks enough detail to testify that appropriate management has been tried based on the local referral pathway, then it becomes very difficult for the Dermatologist to decide whether or not the patient should be started on Roaccutane - a potent medication with many side-effects (Costa et al., 2011). For example, if a patient cannot provide a clear account of the treatment they have tried then how can the Dermatologist determine if the patient has bad acne due to treatment failure or bad acne because they have had inadequate treatment?

The most common potential side effects of Roaccutane are in themselves not terribly concerning but are a day-to-day nuisance for patients. Dryness or irritation of the skin and mucous membranes, arthralgia, myalgia and abnormal blood results, such as elevated lipids, are probably the most commonly reported side-effects listed in the British National Formulary (British National Formulary⁷, 2014) and on the patient
information website Patient.co.uk (Kelly, 2013). These can prevent patients from wearing contact lenses, having their legs waxed or participating in strenuous exercise and can also lead to more frequent nose bleeds in pre-disposed individuals. It is fairly obvious that these daily inconveniences would be best avoided if possible. However, eMC Medicine Guides (2015) and the British National Formulary1 (2014) include lists of many more serious side-effects too. One of the most described and investigated side-effects in the literature is Roaccutane’s theorised association with depression and suicidality. The BNF lists this as rare side-effect but also states that “a causal link between isotretinoin use and psychiatric changes (including suicidal ideation) has not been established”. This statement is supported by evidence from a review of the available literature conducted by Marqueling and Zane (2005). Furthermore, Halvorsen et al. (2011) postulates that mental health problems associated with acne therapies, such as Roaccutane, may be a result of psychological disturbance relating to the underlying acne instead. Despite the current review findings, there is still some uncertainty amongst clinicians over the link between Roaccutane and mental ill health and, as a result, it is advised by the BNF that these side-effects are acknowledged and discussed with patients. With these risks in mind, however, it should also be noted in the interests of balance that a study by Dunn et al. (2011) found that successful treatment of acne (with Roaccutane) actually improved patients’ mental health and overall quality of life.

In contrast to the above uncertainty, one of the clearest and most worrisome side-effects of Roaccutane is its teratogenic potential in pregnant individuals. Mehra et al. (2012) reports figures showing that as many as 40% of children exposed to isotretinoin in-utero are born with birth defects, which commonly affect the face and head, cardiovascular system, central nervous system, thymus and parathyroid glands according to Titus and Hodge (2012). Additionally, Costa et al. (2011) reports that approximately 20% of exposures will result in spontaneous abortion of the foetus. It is therefore essential that female patients use adequate contraception, preferably two methods, and many clinicians insist that patients attend for monthly pregnancy checks. Choi et al. (2013) also highlights the need for confirmation that the patient is not pregnant when treatment is commenced as well as provision of education to the patient regarding the risks of pregnancy during treatment and for approximately one month after it has finished (until drug levels have had time to fall).
Although Roaccutane is a very effective medicine in the treatment of acne, it is clear that it is of utmost importance that it is only used when necessary in suitable cases – and indeed only prescribed by Dermatologists in Secondary Care (British National Formulary\textsuperscript{2}, 2014). As General Practitioners fulfil the role of “gatekeepers” for Secondary Care (Little et al., 2004) it is clear that they should be encouraged to ensure their referrals for consideration of starting Roaccutane are informative and appropriate – this includes documenting that they have exhausted Primary Care options, where appropriate, based on the local referral pathway.

In addition to the above effects that inappropriate or inadequate referrals have on patients, it must be considered how these referrals impact on the wider healthcare system. From a practical point of view, there are consequences for staff, the hospital and the National Health Service when referrals do not conform to guidance or do not contain sufficient detail (Akbari et al., 2008). Vermeir et al. (2015) also acknowledges the effect that they can have on health services: consequences such as squandered resources, stressed staff and the financial burden of an inefficient bridge between Primary and Secondary Care may result. These outcomes should be viewed just as seriously, in light of their detrimental effect on the health care system as a whole, as mismanagement of a patient’s care and the possible resultant harm that may occur. The most obvious example of where these effects may manifest themselves in this audit is again highlighted by the possibility of a patient receiving Roaccutane therapy in Secondary Care because it was unclear that they had not received adequate treatment in Primary Care. A typical female patient being treated with Roaccutane at DGRI will require a minimum of 6-7 clinic appointments in the course of their treatment. This involves at least the initial consultation (potentially two if the patient is not using reliable contraception at the time of the first) and monthly pregnancy tests until the course is completed. Therefore, monetary costs include staffing (a nurse, a Dermatologist, secretaries etc), pregnancy tests and blood monitoring tests. Costs in terms of time can be viewed as the time the patient is in the clinic and also the theoretical time that is lost where another, appropriately referred, patient could potentially have been at the clinic in their place. Further time may be wasted as a result of the Dermatologist feeling obliged to take time to establish whether other Primary Care treatment options remain available, which cannot be done on the DGRI computer systems at the moment. On the other hand, it would have taken no time to
work it out by reading it from a concise referral letter. Wasted clinic time only exacerbates waiting lists and clinicians’ workload, thus causing frustration to patients and stress for staff.

To be clear, if the Dermatologist could reliably determine that a patient did not require referral or management with Roaccutane at that point in time then many of these costs could be spared.

Of course, it is understood that many of the discussed consequences of poor referrals are entirely theoretical. However, they are neither impossible nor improbable – particularly given the prevalence of the disparity in the information sought by the Dermatologists and the information provided by GPs. Many of these possible outcomes are based on the assumption that the patient should not have been referred at the point in time they were and consequently should not be receiving Roaccutane at that point in time either. In reality it is probably very infrequent that Roaccutane is started inappropriately as the Dermatologist will still make a clinical decision whether the patient should receive it or not – regardless of the lack of information in the referral letter. The main point remains however that, because of missing details in referral letters and a lack of evidence that local guidance was followed, there is a theoretical risk that the Dermatologist may, with the best of intentions, commence somebody on Roaccutane before it is absolutely required, resulting in some of the aforementioned problems.

5.3 Pressures to Refer:

Whilst the theme of the findings thus far may seem disparaging of General Practitioners’ referral techniques, which is in no way intended, it is recognised that GPs face large, diverse workloads day in day out in their clinics. The referral process is by no means homogenous from patient to patient and due to the large range of variables that GPs must consider it is clear that it can be an unenviable task. Additionally, it is widely acknowledged that there is immense time pressure in Primary Care clinics. It is therefore understandable that referral letters are at risk of becoming too brief – particularly as GPs have the benefit of knowing much of a patient’s clinical history, whereas Secondary Care clinicians do not. These factors, and many others, make analysing the quality of referral letters quite complicated.
Although the cases in this audit have highlighted a gap in understanding between GPs and the Dermatologists in this scenario, there is no blame to be apportioned. The aim of this audit is to simply identify the discrepancy and to attempt to remedy it, with the intention of better outcomes for patients and professionals alike.

As eluded to earlier, Wahlberg et al. (2015) notes that GPs may refer patients for a variety of reasons other than simply for investigation or diagnosis. In modern day medicine, patient involvement in their care has increased and consequently GPs, and health care workers in general, must be aware of patients’ perceptions of their interactions with health care services. As a result, GPs may feel obliged to refer patients to Secondary Care services for further expert opinion, to provide reassurance for the patient or, sadly, to protect themselves from possible litigation (Wahlberg et al, 2015).

Little et al. (2004) also describes similar dilemmas that GPs face when referring patients to Secondary Care. These dilemmas were shown to affect their Primary Care behaviours, such as prescribing and conducting investigations. Little et al. (2004) points out that in the majority of cases patients were referred due to the GPs’ clinical judgement that there was a valid medical reason for referral. This would appear to be the case for the majority of acne referrals in this audit. However, the review also highlights that there was a significant minority of cases that were referred despite the GPs’ underlying belief that there was limited medical reason to do so. Little et al. (2004) concludes that the most important influence on GPs’ referral practice, secondary to medical need, was the perception of patient pressure. This finding strengthens the assertion by Wahlberg et al. (2015) that there are many justifiable reasons for referral. The cases in this audit that were referred for “Other” reasons, such as seeking second opinions or re-starting Roaccutane, may well be examples of where GPs referred due to their perception of patient pressure or indeed due to the concern of making an error of judgement. As noted by Preston et al. (1999), one reason that GPs may feel patient pressure is that patients often view a referral to Secondary Care as a step forward and a step closer to receiving definitive treatment.

Finally, Little et al. (2014) also indicates that there must be variation in susceptibility to these pressures between clinicians, which is possibly due to the diversity of their personalities. This implies that despite the need for clear referral guidance from
Secondary Care to improve referral letter quality, there is an element of doubt whether this will provide the desired standardised, appropriate referrals that they are looking for in real life practice.
5.4 Benefits of the Audit Findings:

The key benefit of this audit’s findings is the opportunity to highlight the discrepancy between information provided in acne referrals by GPs and the information that is actually required by the Dermatology department at DGRI. In uncovering this mismatch in expectations, the risk of occurrence of the negative consequences that have been discussed above should be minimised. In addition to highlighting the importance of the content of referral letters, it has also provided the Dermatology department with an opportunity to draw GPs’ attention to the recently created acne local referral pathway. It would be reasonable to surmise that improvements in GPs’ understanding of when and how to refer patients with acne in Dumfries and Galloway would help improve the workload that the department faces. Thus, the efficiency of the service they provide, in a wider context than simply the acne clinics, could also progress and result in enhanced patient care.

Moreover, there are some additional, broader benefits from conducting this analysis. Perhaps most helpfully, this audit could be used as a template in other Secondary Care departments to analyse referrals for management of a variety of conditions. It could prove useful in detecting where there are referrals to Secondary Care that do not fulfil criteria stipulated in local or national (NICE or SIGN) guidelines, which could therefore be described as inappropriate. In identifying these referrals, it may also provide further evidence that there can be a mismatch between Secondary Care doctors’ expectations of which cases GPs will refer, or what their work-up involves, and what the GPs themselves believe is their role and what is expected of them. This evidence will allow work to be done at the Primary-Secondary Care Interface to recognise possible communication problems and minimise any discrepancies in understanding. For example, GPs could be reminded of the content of guidelines or Secondary Care doctors could provide their own summary document of guidance about their expectations locally. On the other hand, GPs would have the opportunity to collate their own opinions or concerns about the management of particular conditions and this could be presented to Secondary Care doctors to allow them to understand the rationale behind current referral patterns.
Furthermore, as mentioned previously with the current audit, auditing referrals in other departments would minimise the loss of clinic appointments throughout the hospital to ‘inappropriately’ referred patients. As a result, the efficiency of the entire hospital could hypothetically be improved, which could have many significant effects – improved patient care, reduced risk of iatrogenesis, reduced costs for the NHS and many more.

From a GP’s perspective, there is another subtle but potentially useful advantage to be gained from this audit. However, it is not from the findings directly but from the audit format itself. GPs are required to undertake an appraisal every year as part of the 5 yearly revalidation process (Medical Appraisal Scotland, 2015). The appraisal and revalidation processes are examples of clinical governance designed to continually maintain practitioner’s high standards of performance and to, therefore, optimise patient care (Healthcare Improvement Scotland, 2015). As part of the extensive appraisal system, GPs are required to conduct “Quality Improvement Activities”. Examples of such activities listed by Medical Appraisal Scotland. (2015) include clinical audit and reviews of referral letters. Therefore, it is apparent that this audit could prove to be a useful guide for GPs to use in their appraisals. Audits are very common place in General Practice but the ability to analyse both the validity of their choice to refer (compared to guidelines) and the quality or clarity of the content of their referrals (compared to Secondary Care expectations) would be a very useful demonstration of their intent to improve the quality of their work. This view is supported by Xiang et al. (2013).

In summary, this audit and its findings have implications in both Primary and Secondary Care. These have the potential to generate far-reaching positive consequences for professional development, improved health service efficiency and enhanced patient care.

5.5 Recommendations:

First of all, in order to complete the audit cycle (as described in Figure 1) this audit will be conducted again in a period of 6-12 months’ time. It is necessary to leave sufficient time before re-auditing so that any recommendations or changes that are
made will have adequate opportunity to take effect and so that at least 50 cases are exposed to the changes.

Prior to re-auditing there are a number of recommendations to be made. The first of these recommendations involves increasing GPs’ awareness of the acne local referral pathway. Steps are already being taken to do this by publishing a summary of the audit’s findings along with the local referral pathway in a publication called “Nostrum” (Appendix 3). Nostrum is a monthly newsletter published by the Prescribing Support Team at NHS Dumfries and Galloway, which contains short advisory passages about recent updates to prescribing and management guidance. It is available throughout NHS Dumfries and Galloway and is becoming increasingly helpful in Primary Care as well as Secondary Care. Therefore, it is hoped that utilising this publication will increase GPs’ knowledge of current local guidance regarding Primary Care management of acne and referral to Secondary Care. Thus, it is hoped that the appropriateness of referral letters and the detail they contain will also be improved.

However, it is important to be aware of some conclusions drawn by Akbari et al. (2008) in their review of interventions to improve referrals from Primary Care to Secondary Care. Whilst utilising Nostrum could prove beneficial, Akbari et al. (2008) found that simply distributing referral guidelines, in the absence of teaching or other aide-memoirs such as exercises to improve learning, is unlikely to result in marked change in the quality of referral letters. Although, that said, it is also acknowledged that producing local guidance and involving local Secondary Care clinicians will at least increase the chances of success compared to circulating national guidelines (Akbari et al, 2008). Xiang et al. (2013) agrees with the findings of Akbari et al. (2008) that interventions need to involve more than the provision of written guidelines. A variety of educational approaches are required to enhance learning and it would appear to be greatly beneficial if both GPs and Secondary Care doctors are involved in the education process at a local level, thus highlighting the need for positive working relations at the Primary-Secondary Care Interface. This finding also reinforces the points made in the previous section regarding the potential benefits of conducting this audit in other departments to allow identification of communication breakdowns and to facilitate resolution from both perspectives across the interface. In the context of acne referrals in Dumfries and Galloway specifically, teaching and referral guidance will be provided at an educational Primary Care-Dermatology
provisionally arranged for February 2016 by the GP Continuous Professional Development Advisor.

In addition to improving relations, the second recommendation from this audit is aimed at enhancing the techniques of writing detailed referral letters with the necessary brevity imposed by busy GP practices and hospitals. Many Secondary Care staff, doctors and nurses alike, are familiar with the handover system “SBAR” – Situation, Background, Assessment, Response/Recommendation (Appendix 4). However, this appears to be a largely unfamiliar system to General Practitioners. SBAR is used in handovers throughout DGRI, and many other hospitals across the UK, to convey relevant medical information in a succinct manner from one team or professional to another. For example, studies, such as those by Tews et al. (2012) and Randmaa et al. (2014), have shown that SBAR is an effective way to improve communication between professionals. Upon analysing the 50 referral letters of this audit it became clear that SBAR could prove to be a useful tool in referral letter writing. It could potentially improve clarity and depth of information included in referrals, which, as previously discussed, is the biggest problem identified in this audit. As a result, it is recommended that a trial teaching session on the use of SBAR from Secondary Care clinicians to GPs is implemented. This has been discussed with the regional GP CPD Advisor and is in the process of being arranged. An example of SBAR’s application to an acne referral is as follows:

18 year old male with troublesome acne. (SITUATION).
This young man has suffered from moderate-severe acne affecting his face and shoulders for the last year and I am concerned that it appears clinically to be worsening. In the last 6-9months he has used both lymecycline and oxyztetracycline in combination with topical benzoyl peroxide for 3 months each. There has been limited improvement and scarring is now developing over both shoulders. (BACKGROUND and ASSESSMENT). I would be grateful for your review and consideration of further management with Roaccutane. (RESPONSE/RECOMMENDATION).

The final possible recommendation to consider comes with a word of warning. Akbari et al. (2008) and Xiang et al. (2013) were again in agreement that the use of
checklists or templates in referrals were shown to be effective in improving referral quality. It is plausible that these interventions could be useful in improving acne referrals to DGRI should the Dermatology department choose to create some form of template for GPs to follow. However, in actual fact, this approach is probably not recommended in this case. Akbari et al. (2008) makes a very good point that the use of checklists or referral templates should probably be reserved for key conditions – such as the checklists already used in skin cancer referrals. The reason behind this advice comes down to practicality. It is impractical for GPs to complete a structured “tick-box” referral for every condition that comes through the surgery door in a working day, not to mention it being very tedious. Additionally, there is a risk that this practice may well result in GPs referring patients inappropriately due to diminished emphasis on their clinical judgement. Therefore, there is the potential to undermine the principle objective of the checklist in the first place – to improve referral quality. Currently, with these risks in mind, production of a checklist or template for acne referrals in Dumfries and Galloway is not deemed to be an appropriate recommendation.

All in all, the main recommendations of this audit are to further highlight the acne local referral pathway in combination with teaching exercises from Secondary Care, such as teaching about the communication system SBAR. It is not recommended that checklists are employed for creating referrals at this point in time. Finally, there appears to be a lack of reliable research into interventions to improve referral letter quality (Akbari et al, 2008) and, as such, it would be interesting to conduct future studies based upon these recommendations to see if there is an improvement in acne referrals to DGRI.

5.6 Strengths and Weaknesses of the Audit:

There are a few drawbacks in the design of this audit. The biggest problem encountered was the subjective nature of data collection. There was an opportunity for bias and human error when allocating referral letters to the appropriate NICE (2014) indication category. Due to the lack of details discovered in the referral letters it was sometimes difficult to determine the principle reason for referral, for example ‘failure of Primary Care management’ or ‘Other’.
Another dilemma in data collection was that the local referral pathway was only published in written form around the middle of the period of clinics (late July/early August) that data were collected from. This means that there was potentially an improvement in quality of the later referrals (approximately results 1–20) due to an increased awareness of the Dermatologists’ local guidance. However, the results do not support this trend. If anything, referrals appear to be attributed more commonly to ‘failure of Primary Care management’ during this period. Unfortunately, the lack of awareness of the local referral pathway overall may still be the reason why the referral letters scored poorly in the secondary analysis. There was also variation in guidance between national, NICE (2014), management guidance and the local guidance in the referral pathway. However, although this may explain why the local referral pathway was not followed appropriately, it still does not account for the recurrent lack of information provided in the letters.

One of the main strengths of this audit is its reproducibility and scope for use in other conditions and specialties. It is also useful that this audit format could provide GPs with a template to use in their appraisals, too.

Although timing of the audit could be regarded as a weakness with respect to the implementation of the local referral pathway, it could also prove to be a positive. The timing of the results will allow the Dermatology department to confirm the need for the local referral pathway and to highlight it to GPs in the region. It also means that when this topic is re-audited in a year’s time the results of that audit will indicate if the local referral pathway has helped improve referral quality or not.
6. Conclusion

It is evident from the findings of this audit that there is indeed a disparity in the information provided in Acne Vulgaris referrals from Primary Care and the information that is required by Dermatologists in Secondary Care. It has been shown that the vast majority of referrals analysed contained insufficient detail to determine if they were appropriate or not, despite broadly adhering to referral indications stipulated in the 2014 NICE guidelines. It has also been shown there is rarely evidence that the local referral pathway in Dumfries & Galloway has been followed in Primary Care, thus indicating that perhaps awareness of the recently created guidelines amongst GPs is minimal. Furthermore, the lack of concordance with the local referral pathway undermines the finding that patients were appropriately referred due to ‘failure of Primary Care management’.

There are a multitude of serious consequences affecting patients, professionals and the wider health care system that may ensue as a result of poor communication, such as in the form of the referral letter, between Primary and Secondary Care. In the context of referrals for acne management, perhaps the greatest concern is the uncertainty Dermatologists face when attempting to instigate Roacctuane therapy without adequate background information provided in the referral.

There are a number of studied interventions aimed at improving communication at the Primary-Secondary Care Interface but it is evident from reviewing pertinent literature that further research in this area is required. However, some recommendations can be made to improve communication in this scenario. It seems that highlighting the local referral pathway to GPs combined with teaching from Secondary Care, such as training in using the SBAR communication system, could prove to be useful in reducing the mismatch in understanding between GPs and the Dermatology Department.
Appendix 1

The full 2014 NICE Guidelines for Acne Vulgaris can be accessed via the following link: http://cks.nice.org.uk/acne-vulgaris#!scenario:1

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**Figure 4: Indications to refer Acne Vulgaris to Dermatology according to the 2014 NICE Guidelines (NICE, 2014)**

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Referral criteria for acne vulgaris are based on Referral advice: A guide to appropriate referral from general to specialist services, published by the National Institute for Health and Care Excellence (NICE). For people requiring referral 'immediately' or 'soon', NICE specify that 'Health authorities, trusts, and primary care organizations should work to local definitions of maximum waiting times in each of these categories. The multidisciplinary advisory groups considered a maximum waiting time of 2 weeks to be appropriate for the urgent category' [NICE, 2001].
Appendix 2

Local referral pathway for acne based upon guidance found at the Primary Care Dermatology Society website, which can be accessed via the following link:  
http://www.pcds.org.uk/clinical-guidance/acne-vulgaris#management

Figure 5: Dumfries and Galloway Acne Vulgaris local referral pathway
Appendix 3 – Nostrum
Appendix 4

Figure 6: SBAR awareness poster taken from the Outpatient Department at DGRI.
References


